

REMARKS

The Office Action of January 25, 2006 has been received and its contents carefully noted.

The present Amendment adds new dependent claims 11-16 to further protect the invention. Claims 11, 13, and 15, which depend from independent claims 1, 7, and 10, respectively, recite that "said preset current value range lies between a lower current limit and an upper current limit." This is supported (for example) by the paragraph at page 10 of the application, lines 3-10. New claims 12, 14, and 16, provide that "both current limits are non-zero current limits." This is not explicitly stated in the specification, but an ordinarily skilled person who had read the specification would have understood that non-zero current limits were what the inventor had in mind. See, for example, the paragraph at page 10, lines 11-27 (and particularly lines 18-24), which advises that a relatively large current is outside the current value range for telephone and that "almost no current" (for an open circuit) is also outside the current value range for a telephone. Since no current or almost no current is outside the lower limit, an ordinarily skilled person would recognize that the lower limit is non-zero.

Section 2 of the Office Action rejects all of the independent claims (that is, claims 1, 7, and 10) for obviousness on the basis of Marsh et al, Tsutsui et al, and Itoi. For the sake of convenient discussion, Marsh et al and Tsutsui et al will hereafter be called simply "Marsh" and "Tsutsui." For the reasons discussed below, it is respectfully submitted that the inventions defined by the independent claims are patentable over these references.

Section 2 of the Office Action basically takes the position that Marsh discloses major features of a LAN in accordance with the independent claims, including a line concentrator and a plurality of terminals, that Tsutsui discloses various features of the line concentrator, and that Itoi discloses the use of terminals that include at least one telephone. The main problem with the analysis in section 2 is the Tsutsui reference, which discloses a terminal with circuitry to detect an over-current situation, to stop feeding power to the terminal device when this occurs, and to notify a main control processor of the fault.

Independent claim 1 recites “a current monitor section for detecting whether a value of current flowing in each of said power feed lines ... is within a **preset current value range which represents a state where the telephone terminal is connected ...**” (emphasis added). The Office Action alleges that Tsutsui’s comparator 14 and its associated components constitute such a current monitor section. However, Tsutsui’s comparator 14 only detects whether the current supplied to an AUI is higher than a reference value. Tsutsui neither discloses nor suggests detecting whether current is “within a preset current value range which represents a state where the telephone terminal is connected” in accordance with claim 1.

Claim 1 also recites a “control section” which operates “to stop feeding the power ... when said current monitor section detects the value of the current flowing in the corresponding power feed line is outside said preset current value range, and to continue feeding power ... when said current monitor section detects that the value of the current flowing in the corresponding power feed line is within said preset current value range.” If the “preset current value range” in Tsutsui is taking to be above the reference value supplied to Tsutsui’s comparator 14, and if the current supplied to Tsutsui’s terminal is within this preset current value range (meaning an over-current condition), Tsutsui stops feeding power to his terminal. This is opposite from what is recited in claim 1.

Finally, claim 1 provides that “current monitor section” and the “control section” are part of a “line concentrator.” Tsutsui’s comparator 14 and associated elements, in contrast, are part of a terminal. Nothing in Tsutsui or Marsh would have provided an incentive for an ordinarily skilled person to shift Tsutsui’s comparator 14 and associated elements from Tsutsui’s terminal to Marsh’s line concentrator.

In view of these considerations, it is respectfully submitted that the rejection of claim 1 for obviousness should be withdrawn.

Independent claims 7 and 10 are patentable over the references for similar reasons. Claim 7 recites that a line concentrator comprises “a current monitor section” which detects whether current “is within a preset current value range that represents a state where the terminal requiring power is connected ...” and “a control section” which operates “... to continue feeding the power ... when the current monitor section detects that the value of the current flowing in the corresponding power feed line is within the


preset current value range.” Claim 10 provides that a line concentrator “detects whether a value of current ... is within a preset current value range that represents a state where the terminal requiring power is connected ...” and “if the value of current is within the preset current value range ... continues feeding the power to the corresponding terminal.” Nothing in Tsutsui’s arrangement for protecting a terminal by turning it off if an over current state is detected at the terminal would have led an ordinarily skilled person to modify Marsh’s LAN so as to achieve these features.

Since the remaining claims depend from the independent claims discussed above and recite additional limitations to further define the inventions, so they are patentable along with their independent claims and need not be further discussed. Nevertheless, the new dependent claims will now briefly address.

Claims 11, 13, and 15 provide that “said preset current value range lies between a lower current limit and an upper current limit.” Tsutsui’s comparator 14 receives only one reference value, and it cannot establish two limit values. Even if one were to argue that only one of the limit values would need to be supplied by the reference value fed to Tsutsui’s comparator 14, new claims 12, 14, and 16 provide that neither current limit is zero.

For the foregoing reasons, it is respectfully submitted that this application is in condition for allowance. Reconsideration of the application is therefore respectfully requested.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Allen Wood", is written over a horizontal line.

Allen Wood

Registration No. 28,134

Customer No. 23995

(202) 326-0222

(202) 408-0924 (facsimile)

firm@rabinberdo.com (e-mail)

AW:ss